Experiment 3

3. Design a lexical Analyzer to validate operators to recognize the operators +,-,*,/ using regular Arithmetic operators .

Program:

```
#include <stdio.h>
#include <stdbool.h>

int main() {
   char input[100];

   printf("Enter an arithmetic expression: ");
   scanf("%s", input);
   int i = 0;

   while (input[i] != '\0') {

      if (input[i] == ' ' || input[i] == '\t' || input[i] == '\n') {
         i++;
         continue;
      }


      bool isValidOperator = false;

      if (input[i] == '+') {
         isValidOperator = true;
      } else if (input[i] == '-') {
         isValidOperator = true;
      } else if (input[i] == '*') {
```

```
            isValidOperator = true;
        } else if (input[i] == '/') {
            isValidOperator = true;
        } else if (input[i] == '=') {
            isValidOperator = true;
        }

        if (isValidOperator) {
            printf("%c - operator.\n", input[i]);
        } else {
            printf("%c - not an operator.\n", input[i]);
        }

        i++;
    }

    return 0;
}
```

Output: